

Ed Tech Training through Cyber Partnerships

LearnLink

LTNet/ProInfo

*The vocation of Brazil and the
United States is to stand
together.*

*President Fernando Henrique Cardoso
in a Speech on April 20, 1995*

*With our two great nations
cooperating as never before, we
stand at a moment of unparal-
leled opportunity. We must seize
it, and we will seize it.*

*President William Jefferson Clinton
in a Speech on April 20, 1995*



LARGE

“Large” is key to understanding most things about Brazil. It is the fifth most populous country in the world. The Amazon basin is the largest rainforest in the world, the Amazon River has the largest volume of water and is the second longest after the Nile, and the river system is extensive and boasts one of the largest waterfalls in the world. Its forests constitute 30 percent of the world’s forest resources. Brazil offers a huge, rich, varied biodiversity of vegetation and animal life and considerable natural, mineral, and human resources.

While the territory of Brazil spans almost half of the South American continent, many areas are scarcely populated. The population follows a

wide band along the coastline, though road construction has led to increased population in less populated areas in the interior. Brazil’s diverse population reflects an evolution from Portuguese settlers after the 1500s, a considerable African population, the native Indians that now number about 200,000, and other settlers from Europe, the Middle East, and Asia. Over the past two hundred years, governing bodies shifted from ruling elites of colonists, fascist military rulers, and finally, in 1989, to a democratically elected President. The country is young, with 62% of its people aged under 29 years, and inequalities in wealth, population concentration, education, and culture are evident.

LINKS

Both historically and currently, the United States and Brazil are linked. The countries are the two largest in the hemisphere, and exchanges of trade, people, music, culture, intellect, and resources have occurred for many decades. After 1900, links between the two countries grew stronger, with American investment increasing even more after World War I. Recently, both the US and Brazil have actively sought economic integration in the hemisphere. As a high middle income country, Brazil stands out as an economic giant within South America, and it weighs in as the eighth largest economy in the world.

Given Brazil's strong economy and growing middle class, it is not surprising that Internet access and computer ownership is now among the highest in the world. An estimated seven million Brazilians use the Internet today, and people in medium to large cities have increasingly easier access to free Internet services, in part due to offers from banks to customers. Since the mid-1990s, ProInfo, part of the national Ministry of Education's Secretariat of Distance Education, has provided computer labs and Internet access to selected public schools. It is through these schools that poorer Brazilians have the best opportunity to use computers and the Internet, and the digital divide within Brazil and between countries is narrowing.

Zoom in on Brazil

Geography

Location: Eastern South America (SA),

borders with 10 out of 12 SA countries

Area: 8,511,965 sq km

Environmental issues: drought, floods, loss of biodiversity, deforestation, air/water pollution

People

Population: 171,853,126

Age structure: 30% aged 0-14; 65% aged 15-64; and 5% aged over 65

Population growth rate: 1.16%

Total Fertility Rate: 2.28 children born/woman

Infant mortality rate: 35.37 deaths/1,000 live births

Life expectancy at birth: total: 64.06 years; males: 59.35 years; females: 69.01 years

Ethnic groups: white 55%; mixed white and black 38%; black 6%; and other 1%

Religion: Roman Catholic 70%

Languages: Portuguese (official)

Net primary enrollment: 97%

Literacy: total: 83.3%; males: 83.3%; and females: 83.2%

Economy

GDP: \$6,100

Inflation rate: 2%

Labor force: 57 million

Unemployment rate: 8.5%

Budget: revenue: \$151 billion;

expenditures: \$149 billion

External debt: \$258.1 billion

Communications

Telephones: 14,426,673

Radio broadcast stations: AM 1627, FM 251, shortwave 114

Radios: 60 million

Television broadcast stations: 138

Televisions: 30 million

Internet hosts: 18.45/10,000

Personal computers: 30/1000

The World Factbook 1999

www.odci.gov/cia/publications/factbook/index.html



The Bilateral Partnership

To strengthen education in both the US and Brazil, a bilateral partnership was launched in 1997. Early in the partnership, the Government of Brazil proposed an initiative to enhance the use of computers and educational and communication technologies in US and Brazilian schools. It was anticipated that this initiative would reinforce Brazil's ProInfo program, a national effort to equip schools with computers and to train teachers to integrate computers into classroom pedagogy. From the experience and accompanying exchanges, the US would gain connections with their professional counterparts in Brazil and transfer and exchange information and lessons learned about the use of computers in learning environments.

The partnership combined the resources of the US Department of Education and the US Agency for International Development's (USAID's) Latin American and Caribbean Bureau and Human Capacity Development/Global Bureau with Brazil's Secretariat for Distance Education, a

part of the Ministry of Education. The result was the Learning Technologies Network (LTNet), a creation of LearnLink's staff at the Academy for Educational Development (AED) in the US and the Center for Experimentation in Educational Technology (CETE), a program within Brazil's ProInfo.

CETE provides technical support services to ProInfo schools and a network of nearly 230 Educational Technology Nuclei (NTEs), where teachers are trained to integrate computer use within the curricula. Also, CETE initiates applied research to improve the use of computers and information technology (IT) in education. LearnLink, the US counterpart, provides "ed tech" training and communications resource development to Brazil and a mix of developing countries.

The US-Brazil Learning Technologies Network (LTNet)

LTNet was intended to be a simple, Internet-based clearinghouse of information

on the ever-expanding role of computer and information technologies in education. However, LTNet's mission was reformulated to ensure a more active role in the

bilateral partnership and an equal exchange of information and experiences among educators in both countries. What evolved



was genuine, active input from both partners and collaborative activities between US and Brazilian educators.

Equity among partners is reflected in the dialogues, collaborations, and exchanges that characterize the acquisition and sharing of information. LTNet's website, bilingual in Portuguese and English, provides Brazilian educators with ready access to US experiences in computer-assisted learning and US teachers and researchers with new, exciting experiences and data on Brazil's bold effort. With access to the LTNet's Library, users easily can locate reports, case studies, and other computer links on educational technology, which are abstracted by title and brief description or accessed directly on-line. The

experiences of teachers are catalogued in places on the web site; and multiple, online tools via the Virtual Exchange Environment (VEE) are provided for communicating with "ed tech" professionals—discussion fora, listservs, whiteboards, and text and voice chat rooms. In the "Dispatches" section of the VEE web site, users can post brief statements, project and activity descriptions, and special events information. LTNet strives to encourage and enable networking, sharing,

learning, collaborating, partnering, resource accessibility, and cross-cultural understanding.

The LTNet web site is a visible and accessible part of LTNet's activities, but program effort also involves linking educators involved in the ProInfo program with their counterparts in the US. In this way, both US and Brazilian educators can follow parallel courses to improve education and to develop their own "technological personalities"—strategies, methodologies, and technological development models that emerge from and respond to distinct social, cultural, and economic conditions. The product of this educational reform effort is the accumula-

LTNet's Website (www.ltnet.org) offers:

- a bilingual WWW interface with high and low graphics,
- a virtual Exchange Environment,
- a virtual Library of over 30 resource topics on educational technologies,
- multiple online interactive tools,
- information about ProInfo, Brazil's national computers in schools program,
- membership in a Listserv about LTNet, learning technologies, and projects in Brazil and the US, and
- membership for receiving free online English language instruction.

tion of a large body of shared experience from which to derive models that illustrate the processes involved in introducing and managing the use of communication technology in support of education. In due course, models will be tested to extract lessons and refine country-specific development strategies, which, in turn, will inform policy makers, professionals, and end-users in identifying the optimal paths for future progress.



manipulate digital images, and plan Internet research strategies. Through the VEE, participants also plan activities, share documents, collaborate on projects, develop an online venue to showcase their projects, and host an online ListServ to facilitate communica-

Fulbright Teacher Exchanges

One example of LTNet's linkages is the virtual exchange complement to the Fulbright Teacher Exchange program that evolved out of annual ProInfo meetings. In early 2000, 12 Brazilian teachers of English as a Second Language (ESL) were introduced to LTNet's Virtual Exchange Environment, which they used to communicate with counterpart teachers of English as a Foreign Language (EFL) in the US. Later, the US educators hosted their Brazilian partners on an exchange visit to the Washington, DC area and participated with them in training sessions conducted by the LTNet staff. Participants also had the opportunity to visit AED's National Demonstration Laboratory.

Using the electronic tools available through the VEE, Fulbright participants are learning how to communicate and collaborate with each other by e-mail, threaded discussions and live "chat sessions." The educators from both countries have engaged in hands-on learning with multiple, interactive computer tools and have learned how to create web pages,

manipulate digital images, and plan Internet research strategies. Through the VEE, participants also plan activities, share documents, collaborate on projects, develop an online venue to showcase their projects, and host an online ListServ to facilitate communication efforts. Using the latest Internet tools, LTNet has developed an interactive web environment that enables Fulbright participants to engage in learning activities that enrich and extend their face-to-face program. Future exchange activity includes the US educators' scheduled visit to Brazilian facilities and additional training.

MultiRio

Another collaborative activity is LTNet's media exchange with MultiRio, a quasi-governmental organization in the municipality of Rio de Janeiro that produces and delivers educational television programs. In late 1999, LTNet hosted four members of MultiRio's staff for a study tour in Washington, DC and New York City. The theme of the visit was "The Merging of New Media."

This exchange created the opportunity for LTNet to produce and air three- to five-minute Brazilian educational TV spots highlighting different aspects and resources of LTNet—the first of which on

the Fulbright teachers' training session may be aired as early as September 2000.

Additional coverage may include these spots in a new, one-hour educational television program that showcases innovative activities and communicates the message that "ed tech" can enhance learning.

The Latest Collaborative Activity

On July 17, 2000, LTNet officially launched a new collaboration with GlobalEnglish.com, a young Internet company in the US that offers free online English language instruction. Through the LTNet website, Brazilian schools, especially those knowledgeable about the ProInfo program, will be able to subscribe to this free offer of online English language instruction. With these new tools, teachers, administrators, and students can increase their skill level and gain access to learning resources that

generally are less accessible and that may accelerate language facility.

Forging durable partnerships

The LTNet project is an example of the positive results that are possible when Internet technologies are effectively integrated with conventional face-to-face collaborative activities, producing a durable partnership and catalyzing educational change. Also, LTNet illustrates the importance of relying on a user-friendly, interactive web site both to provide inexpensive access to quality information and enable people across the globe to share experiences and learn from one another. Finally, LTNet shows that effective, lasting partnerships built on mutual respect, a willingness to learn and share, and equity can foster change and enhance important social and development contracts.





ProInfo, An Ambitious National Computers-in-Schools Program

ProInfo, a federally funded Brazilian program, is implemented via a partnership between the Ministry of Education and state and municipal Secretaries of Education to integrate computers and communication technology into teaching and learning. The official program sponsor is the Ministry of Education Secretariat of Distance Education (SEED). ProInfo aims to distribute computers or labs in public schools across the country, to establish a network of teacher training and computer resource centers—referred to as NTEs—in each of Brazil's 27 states, and to train a professional group of “Multipliers,” lab coordinators, and teachers.

Over the past three years, training has reached over 25,000 teachers, 2 million students, and 1,400 Multipliers, who provide training and support to classroom teachers. Teachers are trained to integrate the use of computers into daily teaching and learning and to work in interdisciplinary teams. As of June 2000, there were 229 NTEs distributed throughout the states and municipalities. Local officials and ProInfo staff collaborate in the selection of school sites to receive sophisticated computer labs, which are staffed by trained teachers and technicians. At the end of Phase I, public schools had received over 30,000 computers.

CETE is the ProInfo center that establishes computer laboratories in schools and NTEs, provides technical support to NTEs and schools, and establishes listservs and discussion groups to further educational efforts.



LTNet/ProInfo